WHAT IS CLAIMED IS:

1. An image input unit comprising:

a data generator which generates RGB image data representing each value of RGB for each pixel as signed data type from an input image; and

a data converter which converts the RGB image data into YCbCr image data representing each value of YCbCr for each pixel.

2. The image input unit according to claim 1, wherein the data generator generates CMY or CMYG image data representing each value of CMY or CMYG for each pixel as unsigned data type from the input image, and converts the CMY or CMYG image data into the RGB image data.

3. The image input unit according to claim 2, wherein the data generator includes a signed arithmetic circuit for converting the CMY or CMYG image data into the RGB image data.

4. The image input unit according to claim 2, wherein the data generator generates CMY or CMYG image data representing each value of CMY or CMYG for each pixel as unsigned data type of 10 bits or more from the input image.

5. The image input unit according to claim 1, wherein the RGB image data representing each value of RGB for

15

each pixel generated by the data generator is signed data type
of nine bits or more, and

the RGB image data into YCbCr image data representing
each value of YCbCr for each pixel converted by the data converter
5   is unsigned data type of eight bits.

6.   The image input unit according to claim 1, wherein the
data converter enlarges color saturation represented by CbCr.

10   7.   An image input method comprising:
a data generation step of generating RGB image data
representing each value of RGB for each pixel as signed data
type from an input image; and
a data conversion step of converting the RGB image data
15   into YCbCr image data representing each value of YCbCr for each
pixel.

8.   The image input method according to claim 7, wherein at
the data generation step, CMY or CMYG image data representing
20   each value of CMY or CMYG for each pixel as unsigned data type
is generated from the input image, and the CMY or CMYG image
data is converted into the RGB image data.

9.   The image input method according to claim 8, wherein at
25   the data generation step, CMY or CMYG image data representing

16

each value of CMY or CMYG for each pixel as unsigned data type
of 10 bits or more is generated from the input image.

10.   The image input method according to claim 7, wherein
RGB image data representing each value of RGB for each
pixel generated at the data generation step is signed data type
of nine bits or more is generated, and

YCbCr image data representing each value of YCbCr for
each pixel converted from the RGB image data at the data
conversion step is unsigned data type of eight bits.

11.   The image input method according to claim 7, wherein at
the data conversion step, color saturation represented by CbCr
is enlarged.